

IMPORTANT SAFEGUARDS

HITACHI

SOLID STATE COLOR TV

27CX01B

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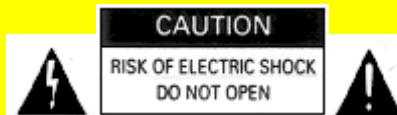


As an ENERGY STAR® Partner, HITACHI has determined that this product meets the ENERGY STAR® guidelines for energy efficiency. ENERGY STAR® is a U.S. registered trademark.

IMPORTANT SAFEGUARDS

IMPORTANT SAFEGUARDS

Follow all warnings and instructions marked on this color television.



**CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING:

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS COLOR TELEVISION TO RAIN OR MOISTURE.

NOTE: • There are no user serviceable parts inside the television.

- Model and serial numbers are indicated on back side of the television.
- This television is not intended for use in a computer room.

CAUTION: • Adjust only those controls that are covered in the instructions, as improper changes or modifications not expressed approved by Hitachi could void the user's warranty.

MODIFICATIONS: • The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Hitachi America, Ltd. Home Electronics Division may void the user's warranty.

POWER SOURCE:

This color television is designed to operate on 120 volts 60Hz, AC current.

Insert power cord into a 120 volt 60Hz outlet.

TO PREVENT ELECTRIC SHOCK, DO NOT USE THE TELEVISION'S (POLARIZED) PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES AND GROUND TERMINAL CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

NEVER CONNECT THE TV TO 50Hz, DIRECT CURRENT, OR ANYTHING OTHER THAN THE SPECIFIED VOLTAGE.

NOTE: This television receiver will display television closed captioning ( or ), in accordance with paragraph 15.119 of the FCC rules.



CAUTION: Never remove the back cover of the television as this can expose you to very high voltages and other hazards. If the television does not operate properly, unplug the television and call your authorized dealer or service shop.

IMPORTANT SAFEGUARDS

SAFETY POINTS YOU SHOULD KNOW ABOUT YOUR HITACHI TELEVISION RECEIVER

CAUTION:

- * Read all of these instructions.
- * Save these instructions for later use.
- * Follow all warnings and instructions marked on the television receiver.

Our reputation has been built on the quality, performance, and ease of service of HITACHI televisions. Safety is also foremost in our minds in the design of these units. To help you operate these products properly, this section illustrates safety tips which will be of benefit to you. Please read it carefully and apply the knowledge you obtain from it to the proper operation of your HITACHI television receiver.

Please fill out your warranty card at once and mail it to HITACHI. This will enable HITACHI to notify you promptly in the improbable event that a safety problem should be discovered in your model of product.

FOR YOUR PERSONAL SAFETY



1 This television set is equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.



2 When the power cord or plug is damaged or frayed, unplug this television set from the wall outlet and refer servicing to qualified service personnel.



3 Do not overload wall outlets and extension cords as this can result in fire or electric shock.



4 Do not allow anything to rest on or roll over the power cord, and do not place the TV where the power cord is subject to traffic or abuse. This may result in a shock or fire hazard.



5 Do not attempt to service the television set yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.



6 Never push objects of any kind into this television set through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the television set.

IMPORTANT SAFEGUARDS



7 If the television set has been dropped or the cabinet has been damaged, unplug this television set from the wall outlet and refer servicing to qualified service personnel.



8 If liquid has been spilled into this television set, unplug it from the wall outlet and refer service to qualified service personnel.



9 Do not subject your television set to impact of any kind. Be particularly careful not to damage the picture tube surface.



10 Unplug this television set from the wall outlet before cleaning. Use a damp cloth for cleaning. Do not use liquid cleaners or aerosol cleaners.



11-1 Do not place this television set on an unstable cart, stand, or table. The television set may fall, causing serious injury to a child or an adult, and serious damage to the appliance. Use only with a cart or stand recommended by the manufacturer, or sold with the television set. Wall or shelf mounting should follow the manufacturer's instructions, and should use a mounting kit approved by the manufacturer.



11-2 An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

PROTECTION AND LOCATION OF YOUR TELEVISION

12 Do not use this television set near water, for example, near a bathtub, washbowl, kitchen sink, or laundry tub, in a wet basement, or near a swimming pool, etc.



- Never expose the set to rain or water. If the set has been exposed to rain or water, unplug the set from the wall outlet and refer servicing personnel.



13 Choose a place where light (artificial or sunlight) does not shine directly on the screen.

IMPORTANT SAFEGUARDS



14 Avoid dusty places. Accumulated dust inside the chassis may cause failure of the television when high humidity persists.

15 The television has slots or openings in the cabinet for ventilation purposes which provide reliable operation of the receiver and protect the television from overheating. These openings must not be blocked or covered.



- Never cover the slots or openings with cloth or other material.



- Never block the bottom ventilation slots of the television by placing it on a bed, sofa, rug, etc.



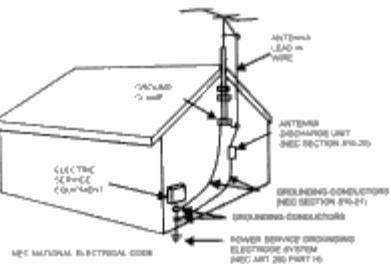
- Never place the television near or over a radiator or heat generator.



- Never place the television in a built-in enclosure, unless proper ventilation is provided.

PROTECTION AND LOCATION OF YOUR SET

16-1 If an outside antenna is connected to the television set, be sure the antenna system is protected against voltage surges and built up static charges, Section 810 of the National Electrical Code, NFPA No. 70-1975, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrode, and requirements for the grounding electrode.



16-2 **Note to CATV system installer:** (Only for the television set with CATV reception) This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.



17 An outside antenna system should not be located in the vicinity of overhead power lines or other electrical lights or power circuits, or where it can fall into such power lines or circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines or circuits as contact with them might be fatal.

IMPORTANT SAFEGUARDS



18 For added protection for this television set during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna. This will prevent damage due to lightning and power-line surges.

OPERATION OF YOUR TELEVISION



19 This television set should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supply at your home, consult your television dealer or local power company. For television sets designed to operate from battery power, refer to the operating instructions.



20 If the television set does not operate normally by following the operating instructions, unplug this set television set from the wall outlet and refer servicing to qualified service personnel. Adjust only those controls that are covered in the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the television set to normal operation.



21 When going on a holiday: If your television set is to remain unused for a period of time, turn the television set "off" and unplug it from the wall outlet.

IF THIS SET DOES NOT OPERATE PROPERLY



22 If you are unable to restore normal operation by following the detailed procedure in your operating instructions, do not attempt any further adjustment. Unplug the set and call your dealer or service technician.

23 Whenever the television set is damaged or fails, or a distinct change in performance indicates a need for service, unplug the set and have it checked by a professional service technician.



24 It is normal for some TV sets to make occasional snapping or popping sounds, particularly when being turned on or off. If the snapping or popping is continuous or frequent, unplug the set and consult your dealer or service technician.

FOR SERVICING AND MODIFICATION



25 Do not use attachments not recommended by the television set manufacturer as they may cause hazards.

26 When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer that have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

SUPPLIED ACCESSORIES.



27 Upon completion of any service or repairs to the television set, ask the service technician to perform routine safety checks to determine that the television is in safe operating condition.

PICTURE CAUTIONS

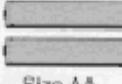
Picture Burn Prevention

- Continuous on-screen displays such as video games, stock market quotations, computer generated graphics, and other fixed (non-moving) patterns can cause permanent damage to color television receivers. Such "PATTERN BURNS" constitute misuse and are NOT COVERED by your HITACHI Factory Warranty.

Public Viewing of Copyrighted Material

Public viewing of programs broadcast by TV stations and cable companies, as well as programs from other sources, may require prior authorization from the broadcaster or owner of the video program material.

SUPPLIED ACCESSORIES.

Infrared Remote Control Part # CLU-341U	Size AA Dry Batteries
 Infrared Remote Control Part Number : CLU-341U	 Size AA Dry Batteries

BEFORE OPERATING YOUR TELEVISION

Location

- For normal operation, your TV should be located in an area of the room where cool adequate ventilation is provided. Do not place the back of the television set in a place where free airflow will be restricted.
- Any magnetic force may disturb the color picture. Make sure that magnets, electric clocks, toys using magnets or any other magnetic substance, such as iron are kept well away from this set.

Power

Your TV operates on 120 Volts, 60 Hertz (normal household current) and has a polarized plug. If you are unable to insert the plug fully into the outlet, try reversing the plug. Should it fail to fit, contact an electrician. Do not defeat the safety feature of the polarized plug.

NOTE:

- If the set will not be used for a long period, such as during a vacation, unplug the set from the wall outlet to economize power. (If the TV set is plugged in, a slight current still flows, even with the POWER BUTTON in the OFF position.)
- Lines and other noise may appear in TV broadcast images when an FM tuner or radio is located near the TV and both radio and TV broadcasts are being received. Should such noise appear, turn off either the TV or the radio.
- If you are listening to an AM broadcast, turn the TV off. AM broadcast signals may not be received due to the interference of the TV.

ANTENNA CONNECTIONS

Before using the television, prepare the Remote Control
To use the remote control, insert batteries first.



Insert the batteries

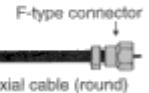
- With your thumbnail, pull up the slit as indicated by the arrow to remove the back cover. Insert two batteries (size "AA"). Be sure to match the battery $+$ / $-$ with the $+$ / $-$ marks inside the compartment.

ANTENNA CONNECTIONS

Antennas

- The antenna requirements for good color television reception are more important than those for black & white television reception. For this reason, a good quality outdoor antenna is strongly recommended.
- The following is a brief explanation of the type of connections that are provided with the various antenna systems:

1. A. 75 ohm system is generally a round cable with F-type connector that can easily be attached to a terminal without tools (not supplied). **The F-type connector should be finger-tightened only.**

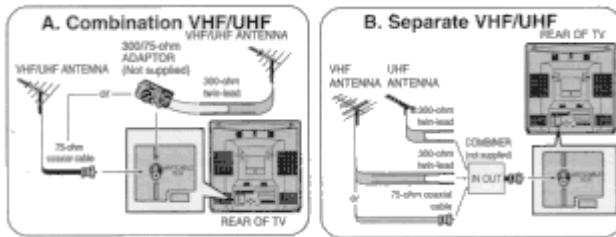


2. A 300 ohm system is a flat "twin-lead" cable that can be attached to a 75 ohm terminal through a 300-75 ohm ADAPTOR (not supplied).



OUTDOOR ANTENNA CONNECTION .

- Use one of the following two diagrams if you connect an outdoor antenna.
- A: Using a VHF/UHF combination outdoor antenna.
- B: Using separate VHF and/or UHF outdoor antenna.
- Connect an outdoor antenna cable lead-in to the COAXIAL CABLE CONNECTOR on the rear of the TV set.



CABLE TV (CATV) CONNECTION

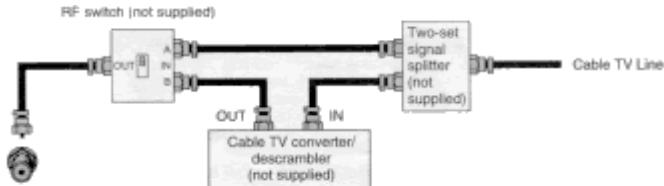
- A 75 ohm coaxial cable connector is built into the set for easy hookup. When connecting the 75 ohm coaxial cable to the set, screw the 75 ohm cable to the COAXIAL CABLE CONNECTOR.
- Some cable TV companies offer "premium pay channels". Since the signals of these premium pay channels are scrambled, a cable TV converter/descrambler is generally provided to the subscriber by the cable TV company. This converter/descrambler is necessary for normal viewing of the scrambled channels. (Set your TV on channel 3 or 4. Typically one of these channels is used. If this is unknown, consult your cable TV company.) For more

QUICK REFERENCE CONTROL OPERATION

specific instructions on installing cable TV, consult your cable TV company. One possible method of utilizing the converter/descrambler provided by your cable TV company is explained below.

Please note: RF switch equipped with position A/B (not provided) is required.

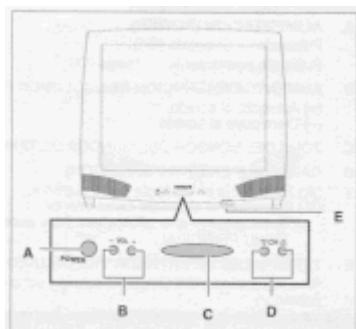
"A" position on the RF switch (not supplied): You can view all unscrambled channels using the TV's channel keys.
"B" position on the RF switch (not supplied): You can view the scrambled channels via the converter/descrambler using the converter's channel keys.



QUICK REFERENCE CONTROL OPERATION

Location of Controls

Front Panel



A POWER

Press On

Press again Off

B VOLUME UP/DOWN

(+) Increases sound.
(-) Decreases sound.

C SENSOR AREA FOR REMOTE CONTROL

D CHANNEL UP/DOWN

(▲) Selects next higher channel.
(▼) Selects next lower channel.
• Press both at same time to access MAIN MENU screen.

E VIDEO/AUDIO IN TERMINALS

(VIDEO/AUDIO terminals are also provided on the rear.)

Basic Remote Control Functions

[click here for image](#)

QUICK REFERENCE CONTROL OPERATION

POWER

Press On

Press again Off

REMOTE KEYPAD

Accesses any channel from keypad.

LAST CHANNEL

Returns to previous channel.

FAMILY FAVORITES

With the Family Favorites buttons, you can program your favorite programs by using the four categories A, B, C and D. The channels can be accessed quickly by using these buttons. (See page 30.)

VOLUME UP/DOWN

(+) Increases sound.

(-) Decreases sound.

- In menu mode, changes or selects the TV adjustments.

MENU

Press Accesses MAIN MENU.

Press again Exits MAIN MENU.

TV-CATV MODE SELECT SWITCH

In TV position, sends power and channel select commands (Channel up/down and Random Access buttons) to the TV.

In CATV position, sends power and channel select commands to a cable TV converter.

VCR CONTROL

See page 33.

RECALL

Press Displays receiving channel for four seconds.

Press again Removes display.

- Temporarily displays receiving channel when in Closed Caption mode.

INPUT

Press once Switch to external video INPUT 1 mode.

Press again Switch to external video INPUT 2 mode.

Press again Switch back to the original TV mode.

See page 32.

ENTER

Used in some instances where a VCR or Cable Converter Box requires an "enter" command after selecting channels, when using the REMOTE KEYPAD button. (See page 33)

CHANNEL UP/DOWN

(\blacktriangleleft) Selects next higher channel.

(\blacktriangleright) Selects next lower channel.

- See pages 26-30 for channel presetting.
- Moves the (\blacktriangleright) mark of the MENU screens.

EZ SETUP DURING FIRST POWER ON

MUTE

Press Mutes sound.

Press again Restores sound.

- CLOSED CAPTION appears when sound is muted.

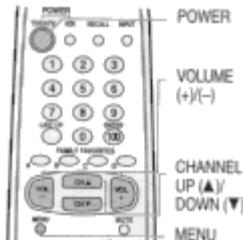
NOTE:

- The above shaded buttons on the Remote Control glow in the dark. To use the glow-in-the-dark display on the remote control, place it under a fluorescent light or other lighting.
- The phosphorescent material contains no radioactive or toxic material, so it is safe to use.
- The degree of illumination will vary depending on the strength of lighting used.
- The degree of illumination will decrease with time and depending on the temperature.
- The time needed to charge the phosphorescent display will vary depending on the surrounding lighting.
- Sunlight and fluorescent lighting are the most effective when charging the display.

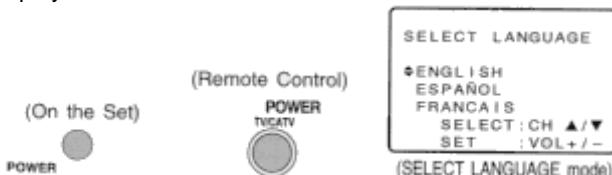
EZ SETUP DURING FIRST POWER ON

When you turn on the TV for the first time, it will automatically memorize the broadcasting channels.
Please perform the following instructions before you press the power button.

- (1) Insert the batteries into the remote control. (See page 5)
- (2) Connect the antenna cable to the TV set. (See pages 5-6)
- (3) Plug in the AC POWER cord to the wall outlet.



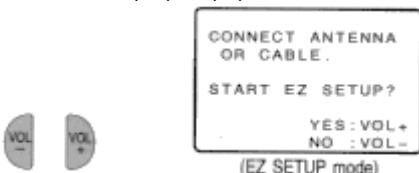
1 Press the *POWER* button on the TV set or on the Remote Control to turn on the TV. The *SELECT LANGUAGE* mode will be displayed



2 Press *CH UP* (▲) or *DOWN* (▼) to select "ENGLISH", "SPANISH (ESPAÑOL)" or "FRENCH (FRANCAIS)".



3 Press *VOL* (+) or (-) to access the EZ SETUP mode.



4 Press *VOL* (+).

DEMO MODE

The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.)



If you want to stop the EZ SETUP process once it has started, press VOL (-) and it will be canceled.

If you want to SETUP again, please refer to page 26 on SETUP.

To cancel EZ SETUP

Press VOL (-)

5 Once EZ SETUP is completed, the lowest channel number memorized will be displayed.

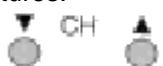


NOTE:

- If EZ SETUP does not memorize all the channels in your region, please refer to page 28 for more information on manually memorizing the channels using CHANNEL MEMORY.
- It may be difficult to PRESET all channels in an area when the broadcasting signals are weak or multiple stations are received on the same channel. Please refer to pages 28-29 for more information on manually memorizing additional channels using CHANNEL MEMORY.

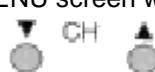
DEMO MODE

- To quickly learn more about the TV set, press and hold for more than three seconds both CH UP (▲) and DOWN (▼) on the TV set. The TV set will go into DEMO mode and briefly explain the various features.
- To cancel DEMO mode, again press both CH UP (▲) and DOWN (▼) on the TV set.



ACCESSING THE MAIN MENU SCREEN WITHOUT REMOTE CONTROL

- If you misplaced your Remote Control you can still access most settings via the MAIN MENU screen when you press both CH UP (▲) and DOWN (▼) on the TV set. (On the set)
- Some features of your TV set will not be accessible without the Remote Control. If you lost your Remote Control, contact a HITACHI Authorized Service Facility by calling 1-800-HITACHI for a replacement.



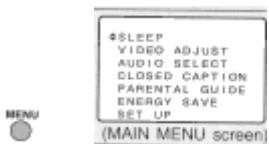
MENU LANGUAGE.

The language for the ON SCREEN DISPLAY can be set to ENGLISH, SPANISH or FRENCH.

Setting the ON SCREEN DISPLAY Language.

- 1 Press MENU to access MAIN MENU screen.

SLEEP TIMER



2 Press **CH UP (▲)** OR **DOWN (▼)** to move the "▼" mark to "SET UP".



3 Press **VOL (+)** or **(-)** to access SET UP mode, then press **CH UP (▲)** or **DOWN (▼)** to move the "▼" mark to "MENU LANGUAGE".



4 Press **VOL (+)** or **(-)** to access MENU LANGUAGE change mode.



5 Press **CH UP (▲)** or **DOWN (▼)** to select "ENGLISH", "SPANISH (ESPAÑOL)" or "FRENCH (FRANÇAIS)".



6 Press **MENU** to exit.

SLEEP TIMER

You can set the number of minutes for your TV to automatically turn off.

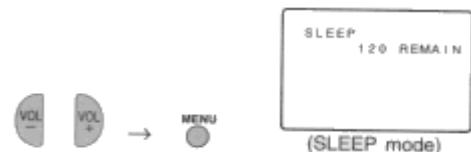
1 Press **MENU** to access MAIN MENU screen.

2 Press **VOL (+)** or **(-)** to access SLEEP mode..



3 Press **VOL (+)** or **(-)** to set a sleep time of 30, 60, 90 or 120 minutes.

4 Press **MENU** to exit



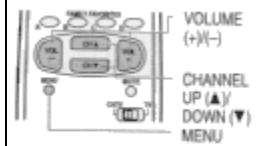
VIDEO ADJUST.

- To turn off the SLEEP, repeat the above SLEEP steps and select "---- REMAIN" during step 3.
- While SLEEP is active, the time remaining will be briefly displayed on-screen at regular intervals or when the remote's Display key is pressed.

VIDEO ADJUST.

Description of Adjustment Items

Selected Item	VOL UP (+) button	VOL DOWN (-) button	
CONTRAST	To increase contrast	To decrease contrast	
TINT	To make skin tones greenish	To make skin tones purplish	
COLOR	To increase color intensity	To decrease color intensity	
BRIGHTNESS	To increase brightness	To decrease brightness	
SHARPNESS	To increase sharpness	To decrease sharpness	
COLOR TEMPERATURE	To choose a RED, BLUE or STANDARD COLOR TONE		
RESET	To return all adjustments to factory preset levels		



1 Press **MENU** to access MAIN MENU screen.

2 Press **CH UP (▲) OR DOWN (▼)** to move the "◆" mark to "VIDEO ADJUST".



3 Press **VOL (+) or (-)** to access CONTRAST adjust mode

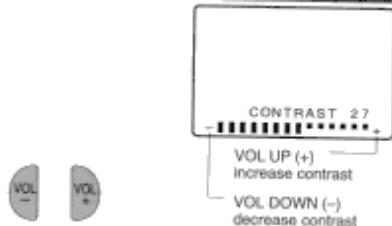


4 Press **CH UP (▲) OR DOWN (▼)** to select the desired mode.
(Refer to the diagram below)

AUDIO SELECT



5 Press VOL (+) or (-) to adjust the setting.



6 Repeat steps 4-5 to adjust other settings.

7 Press MENU to exit

AUDIO SELECT

MTS (MULTICHANNEL TV SOUND)

This circuit allows reception of stereo or bilingual sound.

1 Press MENU to access MAIN MENU screen.

2 Press CH UP (▲) OR DOWN (▼) to move the "♦" mark to "AUDIO SELECT".



3 Press VOL (+) or (-) to access AUDIO SELECT mode



4 Press VOL (+) or (-) to CHANGE THE audio select SETTING.



5 Press MENU to exit

Example:

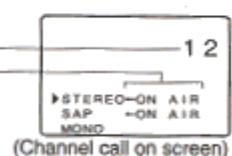
Actual screen indicating ON AIR when receiving STEREO broadcasts.

Actual channel number

"← ON AIR" will appear next to STEREO or

SAP when receiving STEREO or SAP

broadcasts.



CLOSED CAPTION

You can enjoy HI-FI stereo sound or SAP broadcasts where available.

- Stereo broadcasts
Live television transmission of sports, show, concers, etc. can be received in dynamic stereo sound.
- SAP broadcasts
Television broadcast can be received with either MAIN or SAP sound.
MAIN sound: The normal program soundtrack. (Monaural or stereo where available.)
SAP sound: Second language, supplementary commentaries, etc. (SAP sound is monaural.)

If stereo sound is difficult to hear.

- You can obtain clearer sound by manually switching to fixed monaural mode.

NOTE:

- Once MONO mode is selected, the TV sound remains monaural even if the TV set receives a stereo broadcast. You must switch the mode back to STEREO if you want to hear stereo sound again.
- Selecting MTS while in the INPUT mode does not change the type of sound; in this case, sound is determined by the video source.

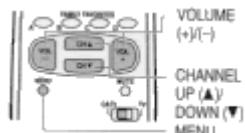
CLOSED CAPTION

HOW TO SET CLOSED CAPTION.

- Your TV is equipped with an internal Closed Caption decoder. "Closed Caption" is a system which allows you to view conversations, narration, and sound effects in TV programs and home videos as subscript on your TV screen as shown on the right.



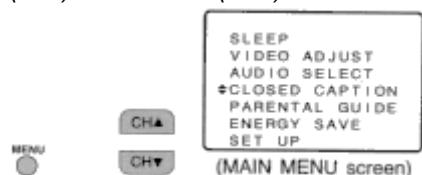
- Not all the programs and videos will offer closed caption. Please look for the "CC" symbol to ensure that all captions will be shown.
- Closed Caption broadcast can be viewed in two modes: CAPTION and TEXT. For each mode, two channels are available, CH1 and CH2:



The [CAPTION] mode subscripts dialogues and commentaries of TV dramas and news programs while allowing clear view of the picture. The [TEXT] mode displays over the picture other various information (such as TV program schedule, weather forecast, etc.) that is independent of the TV programs.

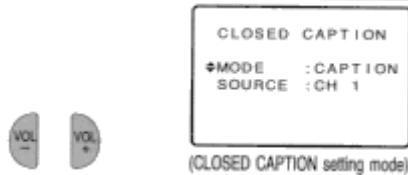
1 Press MENU to access MAIN MENU screen.

2 Press CH UP (▲) OR DOWN (▼) to move the "▼" mark to "CLOSED CAPTION".

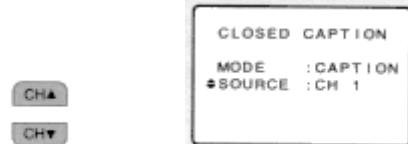


CLOSED CAPTION

3 Press VOL (+) or (-) to access CLOSED CAPTION setting mode



4 Press CH UP (▲) OR DOWN (▼) to move the "◆" mark to either "MODE" or "SOURCE".



5 Press VOL (+) or (-) to change the CLOSED CAPTION setting.



6 Press MENU to exit

NOTE:

- If a broadcast has CLOSED CAPTION and the *MUTE* button is pressed, the set enters [CAPTION] mode automatically. Pressing *MUTE* again will return the set to its previous condition.
- Closed Caption may malfunction (white blocks, strange characters, etc.) if signal conditions are poor or if there are problems at the broadcast source. This does not necessarily indicate a problem with your set.
- If any button is pressed to call up the ON SCREEN DISPLAY while viewing a CLOSED CAPTION broadcast, the closed captions will disappear momentarily.
- When viewing in TEXT mode, if no TEXT broadcast is being received, for some programs the screen may become dark and blank. Should this occur, set the Closed Caption mode to "OFF".

V-CHIP

- This function allows you to restrict TV programs and also allows you to control TV usage based on FCC data. This function is to prevent your children from watching violence or sexual scenes that may be harmful.
- Restriction of TV programs includes two characters that contain information about the program's MPAA rating and the TV Parental Guidelines. MPAA is restricted by age. TV Parental Guidelines are restricted by age and contents.
- Since a TV program may use either the MPAA rating or the TV Guidelines you should adjust both for complete control.

[1] MPAA RATING

RATING		
	G	GENERAL AUDIENCES. All ages admitted.
AGE BASE		
PG	PARENTAL GUIDANCE SUGGESTED. Some material may not be suitable for children.	

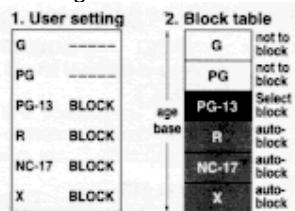
CLOSED CAPTION

PG-13	PARENTS STRONGLY CAUTIONED. Some material may be inappropriate for children under 13.
R	RESTRICTED. Under 17 requires accompanying parent or adult guardian.
NC-17	NO ONE 17 AND UNDER ADMITTED
X	X Rating is an older rating that is unified with NC-17 but may be encoded on older movie's data.

- MPAA RATING (Example)

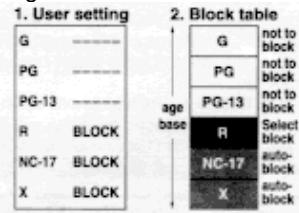
Example 1.

"PG-13" in the age-based RATING is blocked. This will automatically block the high ratings "R", "NC-17" and "X" also.



Example 2.

"R" in the age-based RATING is blocked. This will automatically block the high ratings "NC-17" and "X" also.



NOTE:

- MPAA RATING is only age-based ratings.

[2] TV PARENTAL GUIDELINES

RATING		CONTENT BASE				
AGE	D (Sexually Suggestive Dialog)	L (Adult Language)	S (Sexual Situation)	V (Violence)	FV (Fantasy Violence)	

CLOSED CAPTION

↑ AGE BASE ↓	TV-Y (All children)	—	—	—	—	—	—
TV-Y7 (Direct to Older Children)		—	—	—	—	—	—
TV-G (General Audience)		—	—	—	—	—	—
TV-PG (Parental Guidance Suggested)		—	—	—	—	—	—
TV-14 (Parents Strongly Cautioned)		—	—	—	—	—	—
TV-MA (Mature Audience Only)		—	—	—	—	—	—

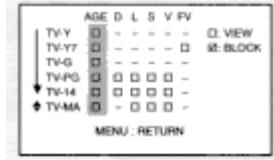
Content Rating can be set.

-- Content Rating can not be set (not normally broadcast by TV Station).

• TV-PARENTAL GUIDELINES (Example)

• Example 1.1:Age-Based setting

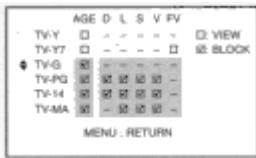
Go through all select ratings and select unblocked ("----") for "AGE". This will automatically unblock everything.



• Example 1.2:Age-Based setting

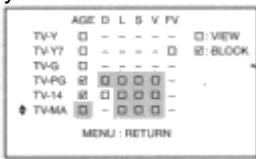
For "TV-G" select "BLOCK" for "AGE". This will automatically block the higher age ratings "TV-PG", "TV-14", "TV-MA" and "TV-G".

Furthermore, the content ratings "D", "L", "S", "V", "FV" are automatically blocked as well for "TV-PG", "TV-14", "TV-MA" in addition to "TV-G".



• Example 2.1:Content-Based setting

For "TV-PG", "TV-14" and "TV-MA" select unblocked ("----") for each content rating but leave "AGE" blocked for "TV-PG" and "TV-14" only.

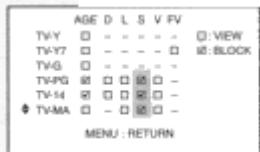


• Example 2.2:Content-Based setting

For "TV-PG", select BLOCK" for only "V" (Violence). This will automatically block the higher ratings "TV-14-V" and

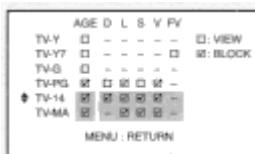
CLOSED CAPTION

"TV-MA-V" ("TV-14" and "TV-MA" for Violence content only). Please note that with these settings, blocking does NOT occur if a program is rated only "TV-MA"; it must be rated "TV-MA-V" to be blocked.



• Example 3: Reset an Age-Based setting

For "TV-14", select "BLOCK" for "AGE". This will automatically block the content ratings "D", "L", "S", "V", "FV" for "TV-MA" in addition to "TV-14". Please note that the lower age rating "TV-PG" did not change from its previous settings.



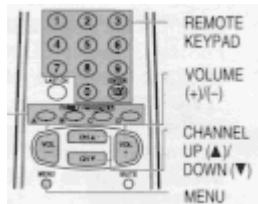
NOTE:

- Content ratings can be modified but only in the combinations indicated by "—" in the table on page 16.
- Changing a lower age-rating's content setting to "BLOCK" automatically changes the same higher age-rating's content setting to "BLOCK" regardless of their previous settings.
- Changing a lower rating's "AGE" setting to "BLOCL" automatically changes all higher ratings to "BLOCK" regardless of their previous settings.
- Any rating's "AGE" set to unblocked ("----") must have its content settings individually set.

[3] ADDITIONAL MODE

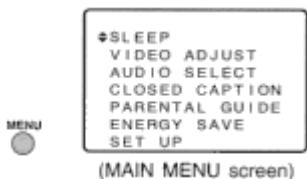
Besides the above "MPAA RATINGS" and "TV PARENTAL GUIDELINES", new ratings systems data can be downloaded when they become available. (See page 21.)

HOW TO SET V-CHIP



[1] MPAA RATING

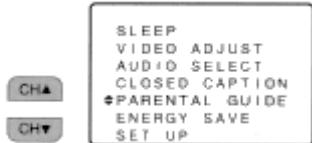
- 1 Press *MENU* to access MAIN MENU screen.



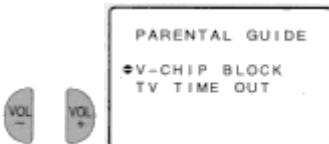
(MAIN MENU screen)

CLOSED CAPTION

2 Press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" mark to "PARENTAL GUIDE".



3 Press *VOL* (+) or (-) to access "PARENTAL GUIDE" mode, then press *VOL* (+) or (-) to access V-CHIP select mode.

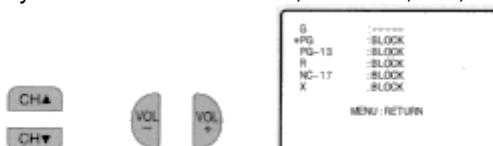


4 Press *VOL* (+) or (-) to access "MPAA RATING".

(The secret No. for V-CHIP/TV TIME OUT is commonly used. If this secret No. is set by TV TIME OUT, the "ENTER SECRET NO." will be displayed.



5 Press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" mark to "PG", then press *VOL* (+) or (-) to select BLOCK. If you set "PG" to BLOCK, "PG-13", "R", "NC-17" and "X" are automatically blocked.



6 Repeat pressing *MENU* to return V-CHIP select mode exit.



NOTE:

Example:

- If you set "G" to BLOCK, all RATINGS are automatically blocked.
- If you set "X" to BLOCK, "G", "PG", "PG-13", "R" and "NC-17" are not blocked.

[2] TV GUIDELINES

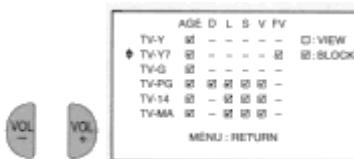
1 Repeat steps 1-3 of [1] MPAA RATING.

2 Press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" mark to "TV GUIDELINES".



3 Press *VOL* (+) or (-) to access "TV GUIDELINES" mode.

CLOSED CAPTION

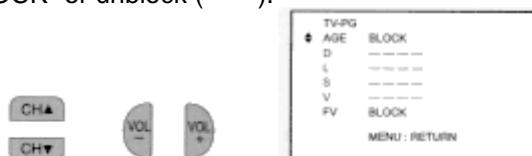


(TV GUIDELINES mode)

4 To change CONTENT SETTING, press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" to the desired content and then press *VOL* (+) or (-) to select.



5 Press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" to the desired content and then press *VOL* (+) or (-) to select either "BLOCK" or unblock ("----").

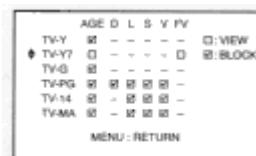


(CONTENT SETTING mode)

6 Press *MENU* to return to TV GUIDES mode.



7 Repeat steps 4-5 until all ratings and their contents are set.

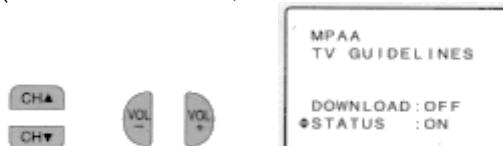


8 When done press *MENU* to exit.



[3] ACTIVATE ON TO TURN ON V-CHIP BLOCK

1 Press *CH UP* (▲) OR *DOWN* (▼) to move the "♦" to "STATUS", then press *VOL* (+) or (-) to activate the V-CHIP BLOCK. (If STATUS is OFF, V-CHIP BLOCK will not be operated.).



2 Press *MENU*, then "ENTER SECRET No." will be displayed.



3 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD*.

CLOSED CAPTION



4 Press MENU and SECRET No. is registered. 

To cancel the V-CHIP BLOCK screen while V-CHIP BLOCK has been activated.

1 "V-CHIP HAS BEEN ACTIVATED" will be displayed if you watch the program with Program Rating data the same as you configured.



NOTE:

- "V-CHIP HAS BEEN ACTIVATED" will not be displayed if STATUS is not configured to "ON".

2 Press MENU, then "ENTER SECRET No." will be displayed.



3 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD*, then V-CHIP BLOCK will temporarily be canceled. If the wrong SECRET No. is chosen "SECRET No. IS INCORRECT" will be displayed. Enter the SECRET No. again in this case.

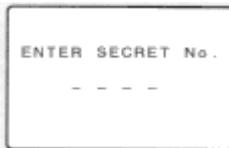


NOTE:

- If you change Power from OFF to ON, then V-CHIP BLOCK will be activated ON again.

To change the V-CHIP BLOCK setting. (Secret No. is registered.)

1 Repeat steps 1-3 of [1] MPAA RATING, then "ENTER SECRET No. will be displayed.



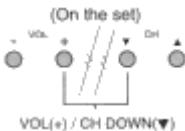
2 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD* and the V-CHIP BLOCK select mode will be displayed. Repeat configuration of the V-CHIP BLOCK.

CLOSED CAPTION



If you intend to change or have forgotten your Secret No., clear the original Secret No. and set up a new one.

- 1 Repeat steps 1-3 of [1] MPAA RATING, or 1-2 of [To cancel the V-CHIP BLOCK screen while V-CHIP BLOCK has been activated], then "ENTER SECRET No. will be displayed.
- 2 Press and hold both VOL (+) and CH DOWN (▼) on the TV set simultaneously until the message "ENTER SECRET No." disappears.



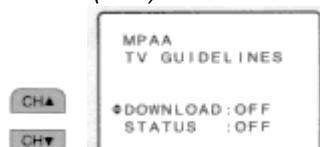
- 3 Press MENU two times to exit.



[3]-A. Additional mode (DOWNLOAD)

There will be an additional new rating system. In that case, please set up as follows. Subsequently the new rating system will set up automatically.

- 1 Repeat steps 1-3 of [1] MPAA RATING
- 2 Press CH UP (▲) or DOWN (▼) to move the "▼" mark to "DOWNLOAD".



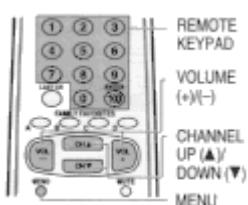
- 3 Press VOL (+) or (-) to "DOWNLOAD: ON".



- 4 Repeat pressing MENU to exit.



DOWNLOAD V-CHIP DATA



- 1 If you watch the program with "New Rating System Data", DOWNLOAD screen will be displayed.

CLOSED CAPTION



2 DOWNLOAD screen will disappear, if DOWNLOAD is finished.

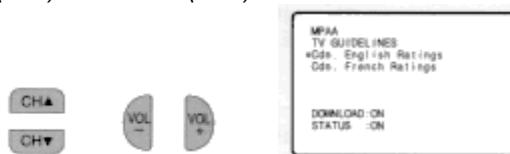
NOTE:

- DOWNLOAD would not be started if you don't watch the program with "New Rating System Data".

[3]-B. Additional mode (Example)

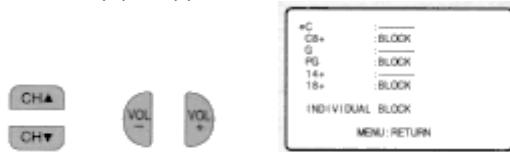
1 Repeat steps 1-3 of [3] Additional mode.

2 Press **CH UP (▲)** or **DOWN (▼)** to move the "▲" mark to "Cdn. English Ratings", then press **VOL (+) or (-)**.



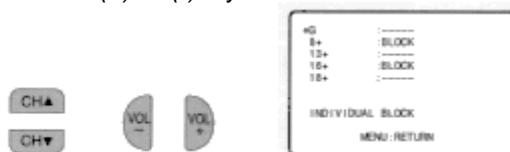
(After downloading the rating data)

3 You can select "BLOCK" or "----" (unblock) from each RATING mode by pressing **CH UP (▲)** or **DOWN (▼)** and **VOL (+) or (-)**.



(ENGLISH INDIVIDUAL BLOCK mode)

4 You can select "BLOCK" or "----" (unblock) from each RATING mode by pressing **CH UP (▲)** or **DOWN (▼)** and **VOL (+) or (-)** if you select "Cdn. French Rating" in step 2.



NOTE:

• In additional mode

Including two types (English mode, French mode), altogether you are able to download four kinds of mode.

TV TIME OUT

This function allows you to restrict TV viewing time and also allows you to control TV usage. This function is to prevent your children from watching too much TV.

VIEWING TIME (an accumulative timer: counts only the time duration acquired while the TV is on.)

- VIEWING TIME can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.
OFF TIME (Restricts TV watching after the TV TIME OUT starts.)

- OFF TIME can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.

STATUS (ON/OFF setting of TV TIME OUT)

CLOSED CAPTION

VIEWING TIME (an accumulative timer: counts only the time duration acquired while the TV is on.)

• **VIEWING TIME** can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.

OFF TIME (Restricts TV watching after the **TV TIME OUT** starts.)

• **OFF TIME** can be set from 30M (30 minutes) to 10H00M (10 hours) in 30 minutes intervals.

STATUS (ON/OFF setting of **TV TIME OUT**)

TV TIME OUT

• **VIEWING TIME**

—H —M

OFF TIME

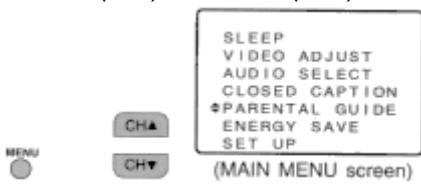
—H —M

STATUS : OFF

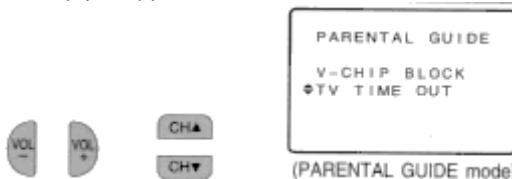
How to set **TV TIME OUT**

1 Press **MENU** to access **MAIN MENU** screen.

2 Press **CH UP (▲)** or **DOWN (▼)** to move the "♦" mark to "**PARENTAL GUIDE**".



3 Press **VOL (+)** or **(-)** to access "**PARENTAL GUIDE**".



4 Press **CH UP (▲)** or **DOWN (▼)** to move the "♦" mark to "**TV TIME OUT**".

5 Press **VOL (+)** or **(-)** to access "**TV TIME OUT**".



6 Press **CH UP (▲)** or **DOWN (▼)** to select "**VIEWING TIME**" and "**OFF TIME**". For each selection, press the **VOL (+)** or **(-)** to set the time duration.



7 Press **CH UP (▲)** or **DOWN (▼)** to select "**STATUS**". Press the **VOL (+)** or **(-)** to turn ON the "**TV TIME OUT**". (If **STATUS** is OFF, **TV TIME OUT** is not operated)



8 Press **MENU**. "ENTER SECRET No." will be displayed.

CLOSED CAPTION



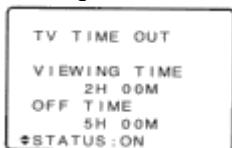
9 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD*.

10 Press *MENU*, and SECRET No. is registered.



Example:

- To restrict anybody from watching the TV for 5 hours, after watching the TV for 2 hours, your settings would look like this:



- They can choose to watch the 2 hours of TV however they wish. For example, they could watch 1 hour of TV, Turn TV off for 30 minutes, then turn TV on and watch the remaining 1 hour on the TV TIME OUT.

To change the TV TIME OUT settings. (SECRET No. is registered)

1 Repeat "How to set TV TIME OUT" steps and select "PARENTAL GUIDE TV TIME OUT" during step 3. Press *VOL (+)* or *(-)*, and ENTER SECRET No." will be displayed.

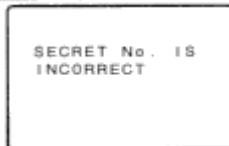


2 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD*, and the TV TIME OUT access screen will be displayed. Repeat step 5-6.



NOTE:

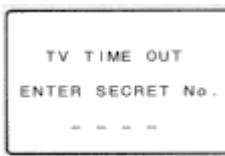
When you choose the correct SECRET No., the TV TIME OUT access screen is displayed. If the wrong SECRET No. is chosen, "SECRET No. IS INCORRECT" is displayed. Enter the SECRET No. again in this case.



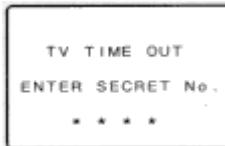
To cancel the TV TIME OUT (While the TV set is OFF but the TV TIME OUT is set)

1 Turn on TV; a blue screen message "TV TIME OUT" will appear. If you do nothing, the TV will turn off in approximately 30 seconds.

ENERGY SAVE .



2 Enter the 4-digit SECRET No. using the *REMOTE KEYPAD*. When you choose the correct SECRET No., the TV TIME OUT is canceled. If the wrong SECRET No. is chosen, "SECRET IN No. IS INCORRECT" is displayed. Enter the SECRET No. again in this case.

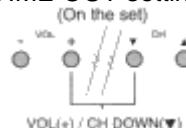


To cancel the TV TIME OUT setting or change the SECRET No. (When you forget the SECRET No.)

1 Repeat "How to set TV TIME OUT" steps and select "PARENTAL GUIDE TV TIME OUT" during step 3. Press VOL (+) or (-), and "ENTER SECRET No." will be displayed.



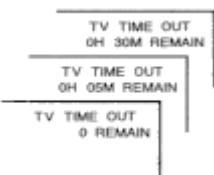
2 Press and hold both VOL (+) and CH DOWN (▼) on the TV set simultaneously until the TV TIME OUT access screen is displayed. Now you can cancel the TV TIME OUT settings or can change the SECRET No.



while "ENTER SECRET No." is displayed.

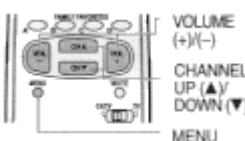
Notice of Remaining Time before TV TIME OUT.

- For every 30 minute interval, the "remaining time" will be displayed for four seconds. For the last five minutes, the "remaining time" will be displayed every minute.
- "0 REMAIN" will be displayed for 10 seconds just before the TV TIME OUT starts.



ENERGY SAVE .

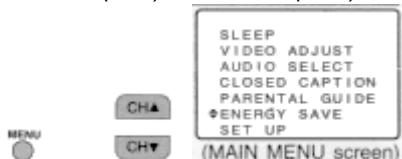
This feature lets you lower the power consumption of your TV set which in turn saves you money and minimizes the impact on the environment. When this feature is turned on, it reduces the brightness of the TV to a level that consumes approximately 20 percent less energy than when the feature is turned off. The reduction in brightness will be less noticeable under low room lighting conditions.



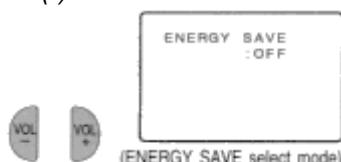
SET UP

1 Press *MENU* to access MAIN MENU screen.

2 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "ENERGY SAVE".



3 Press *VOL* (+) or (-) to access ENERGY SAVE select mode.



4 Press *VOL* (+) or (-) to select "ON".

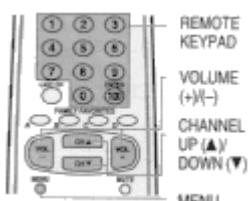


5 Press *MENU* to exit.

SET UP

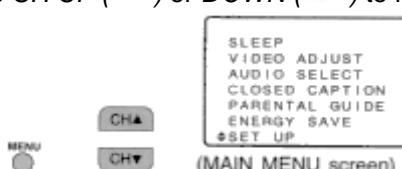
EZ SETUP

By operating the channel presetting functions, you can preset your TV to the desired channels for viewing.



1 Press *MENU* to access MAIN MENU screen.

2 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "SET UP".



3 Press *VOL* (+) or (-) to access SET UP mode, then press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "CH SETTING".

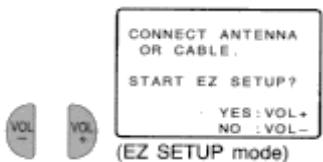
SET UP



4 Press VOL (+) or (-) to access CH SETTING mode.

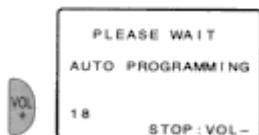


5 Press VOL (+) or (-) to access EZ SETUP mode.



6 Press VOL (+)

The tuner will automatically search for the broadcasting and cable TV channels. (The CH No. will automatically increase when it appears.)



If you want to stop the EZ SETUP process once it has started, press VOL (-). Search will be canceled.

To cancel EZ SETUP Press VOL (-).

7 Once EZ SETUP is completed, the lowest channel number memorized will be displayed.



CHANNEL SETTING

If EZ SETUP does not memorize all the channels in your region, follow the instructions below to manually memorize the channel.

1 Press MENU to access MAIN MENU screen.

2 Press CH UP (▲) or DOWN (▼) to move the "◆" mark to "SET UP".



3 Press VOL (+) or (-) to access SET UP mode.

4 Press CH UP (▲) or DOWN (▼) to move the "◆" mark to "CH SETTING".

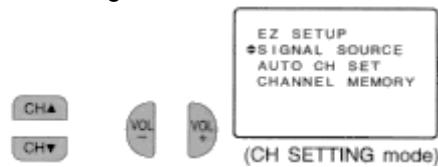
SET UP



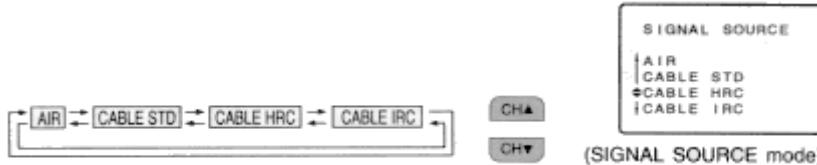
5 Press VOL (+) or (-) to access CH SETTING mode.



6 Press CH UP (▲) or DOWN (▼) to move the "♦" mark to the "SIGNAL SOURCE", then press VOL (+) or (-) to access signal source MODE.



7 Press CH UP (▲) or DOWN (▼) to move the "♦" mark to the DESIRED MODE.



8 Press MENU to exit.

NOTE:

• Receivable channels of your TV set are:

AIR channels: VHF: 2 through 13

UHF: 14 through 69

CABLE channels: 1 (HRC and IRC mode only)

2 through 125 (STD, HRC and IRC)

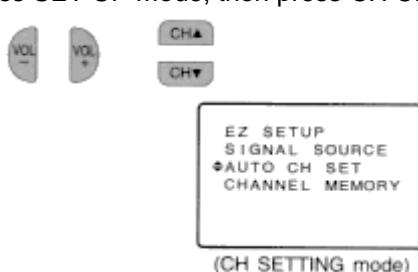
SAVING BROADCAST TV CHANNELS INTO MEMORY.

1.1 Press MENU to access MAIN MENU screen, then press CH UP (▲) or DOWN (▼) to move the "♦" mark



to "SET UP".

1.2 Press VOL (+) or (-) to access SET UP mode, then press CH UP (▲) or DOWN (▼) to move the "♦" mark to "CH SETTING".



SET UP

1.3 Press VOL (+) or (-) to access CH SETTING mode.



1.4 Press CH UP (▲) or DOWN (▼) to move the "♦" mark to the "AUTO CH SET", then press VOL (+) or (-) to access AUTO CH SET mode.



START

2.1 Press VOL (+). The tuner will search through all available channels in your area and add them into the TV's memory.



STOP



2.2 Press VOL (-). AUTO CH SET will stop at the current channel and will not add any higher channels.

2.3 Press MENU to exit.



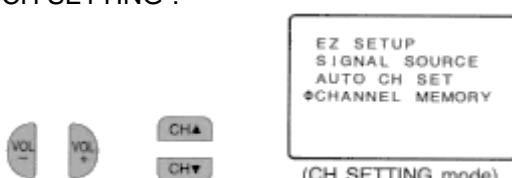
ADDING WEAK OR ADDITIONAL CHANNELS OR ERASING UNWANTED CHANNELS FROM TV MEMORY.

1.1 Press MENU to access MAIN MENU screen, then press CH UP (▲) or DOWN (▼) to move the "♦" mark

to "SET UP".



1.2 Press VOL (+) or (-) to access SET UP mode, then press CH UP (▲) or DOWN (▼) to move the "♦" mark to "CH SETTING".



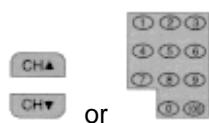
1.3 Press VOL (+) or (-) to access CH SETTING mode, then press CH UP (▲) or DOWN (▼) to move the

"♦" mark to "CHANNEL MEMORY".



2.1 Press VOL (+) or (-) to access CH MEMORY.

2.2 Use CH UP (▲) or DOWN (▼) or REMOTE KEYPAD to select each desired channel to add or erase.

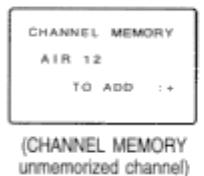


2.3 Press VOL (+) to add a channel to the TV's memory or press VOL (-) to erase a channel from the TV's

SET UP

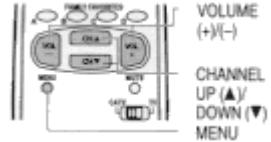
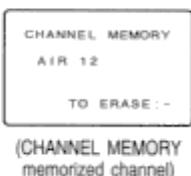
memory.

2.4 Press *MENU* to exit.



VOL (+)
To add channel 12 to the TV memory

VOL (-)
To erase channel 12 from the TV memory



NOTE:

- If you press *VOL (+)* again while in the AUTO CH SET mode, auto-program will start again, and the previously memorized channels will be lost.

BLUE SCREEN

Automatically turns the screen blue if a broadcast signal is not received.

1 Press *MENU* to access MAIN MENU screen.

2 Press *CH UP (▲)* or *DOWN (▼)* to move the "♦" mark to "SET UP".



3 Press *VOL (+)* or *(-)* to access SET UP mode.



4 Press *VOL (+)* or *(-)* to access BLUE SCREEN select mode.



5 Press *VOL (+)* or *(-)* to select "ON".



6 Press *MENU* to exit.



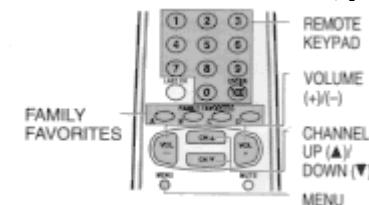
NOTE:

SET UP

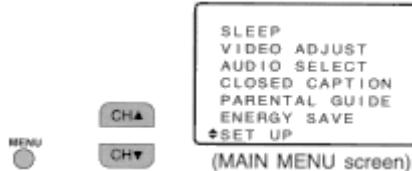
- Poor reception due to weak signals, or too much noise might activate the BLUE SCREEN function despite the presence of a broadcast signal. To continue watching TV under these conditions, switch the BLUE SCREEN "OFF".
- While VCR input mode is selected, the BLUE SCREEN will not be shown on your TV even if the BLUE SCREEN is turned on.

FAMILY FAVORITES

By setting the FAMILY FAVORITES channels in advance, you can select your favorite channels easily.



- 1 Press *MENU* to access MAIN MENU screen.
- 2 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "SET UP".



- 3 Press *VOL* (+) or (-) to access SET UP mode, then press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "FAMILY FAVORITES".



- 4 Press *VOL* (+) or (-) to select FAMILY FAVORITES select mode in which you can program four favorited channels, in four different categories. (total of 16 channels).



- 5 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to the desired position..

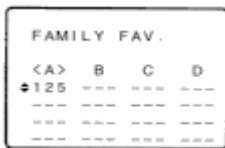


- 6 Press *REMOTE KEYPAD* on the Remote to input the CHANNEL Number into the memory.

Example:

125--Press "100" followed by "2" and then "5".

SET UP

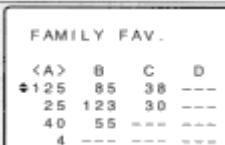
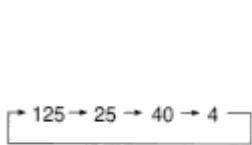


7 Repeat steps 4-6 to input the next CHANNEL Number.

8 Press *MENU* to exit.

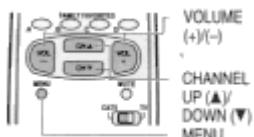
To select the FAMILY FAVORITES channel.

If the channels are memorized as shown to the right, press the Remote's "A" button to select the Channels below.



MAGIC PLAY

VCR input mode will be selected automatically by pressing VCR PLAY button on the remote control.



1 Press *MENU* to access MAIN MENU screen.

2 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "SET UP".



3 Press *VOL* (+) or (-) to access SET UP mode.

4 Press *CH UP* (▲) or *DOWN* (▼) to move the "♦" mark to "MAGIC PLAY".



5 Press *VOL* (+) or (-) to access MAGIC PLAY select mode.

USING THE VIDEO AND AUDIO INPUT JACKS



6 Press **CH UP (▲)** or **DOWN (▼)** to select the "CH3", "CH4", "INPUT 1", "INPUT 2" or "OFF".
Set model to the input in which your VCR is connected. If done through RF, select either channel 3 or 4 match the setting of the VCR.



7 Press **MENU** to exit.

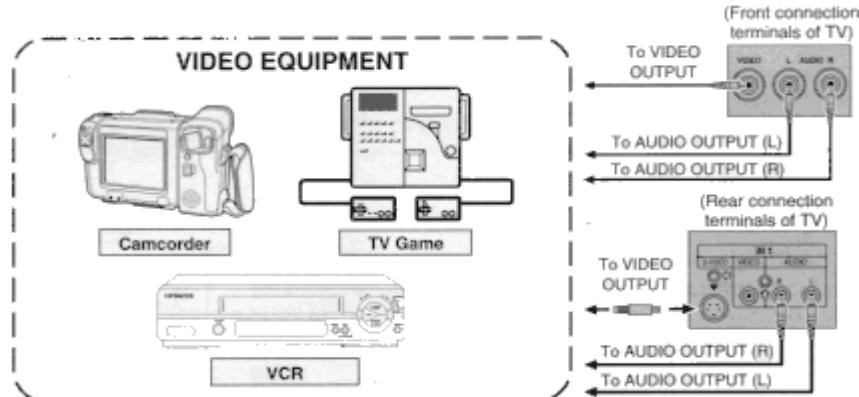
USING THE VIDEO AND AUDIO INPUT JACKS

CONNECTING VIDEO EQUIPMENT FOR PLAYBACK OF VIDEO MATERIAL.

- When the television is connected to video equipment as shown below, the material being played back on the video equipment can be seen on the television screen.

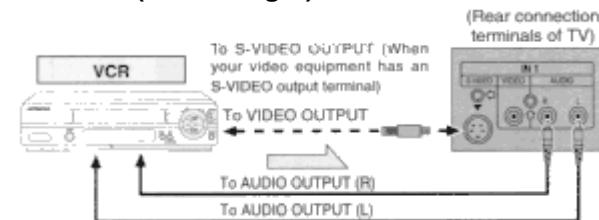
Connecting video device equipped with video output terminal.

CONNECTIONS



* The S-VIDEO INPUT terminals (IN-1) are used to obtain a higher quality image by importing image signal separated into color and brightness signals.

* The S-VIDEO INPUT terminal is for image signal. Audio signal is to be connected to the IN 1 AUDIO terminals (left and right).



TO WATCH VIDEO MATERIAL PLAYBACK.

- Press the Remote's **INPUT** to select VIDEO INPUT mode to which the video equipment you want to playback is

OPERATION OF REMOTE CONTROL

connected.

- The external VIDEO INPUT mode will change as follows each time the *INPUT* is pressed.



- INPUT mode can be selected by pressing either the *CH UP* (▲) on the TV remote control when the TV is set to the highest channel stored in memory, or by pressing the *CH DOWN* (▼) when it is set to the lowest channel.

NOTE:

- When connecting video or audio equipment to the television, be sure that the power is turned off in order to prevent damage to either the television or the equipment being connected.
- The S-VIDEO terminal has priority over a VIDEO terminal (IN-1). When you want to watch pictures from video equipment connected to a VIDEO terminal, unplug equipment connected to the corresponding S-VIDEO terminal.
- It is the intent of HITACHI that this product be used in full compliance with the copyright law and that prior permission be obtained from copyright owners whenever necessary.
- For detailed information on the connection and use of auxiliary equipment, refer to the instruction manuals of the equipment being used.
- The connection cords can be obtained from your local video store.

OPERATION OF REMOTE CONTROL

UNIVERAL REMOTE CONTROL

With the purchase of your television set you also have received the latest innovation in remote control technology. With its easy-to-use push-button keypad, your Remote can control your television set and most infrared remote-controlled VCRs and cable TV converters as well.

NOTE:

- Depending on the model, year produced, brand and type of VCR, some models may not be compatible with the remote control.
- Some brands of VCR or Cable TV converter Box may not enable channel selection until the ENTER is pressed.

Example:

When you select channel 24,

- (1) Press REMOTE KEYPAD "2".
- (2) Press REMOTE KEYPAD "2".
- (3) Press ENTER.

For detailed information on the use of the VCR or Cable TV converter Box refer to their operating manuals.

USING YOUR REMOTE WITH YOUR TV

After installing the batteries, set the TV-CATV on the remote to the TV position. (If you can change the channel of the TV by pressing *CH UP* (▲) or *DOWN* (▼) on the Remote Control, it is in the TV position.)

"IDENTIFYING" REMOTE VCR AND CABLE TV CONVERTERS

Your Remote Control has been set at the factory to operate your TV and many remote control VCRs and Cable Converters. However, in some cases an easy one-tiem set-up step may be necessary before the Remote will operate accessory VCRs and Cable Converters.

- In this set-up step, the Remote locates and memorizes the remote control transmitter code for the VCR or Cable Converter.
- Once "identified", the Remote sends the proper remote signals to operate your accessory.
- This identify step will not have to be repeated until power to the Remote is interrupted due to a battery failure.

USING YOUR REMOTE CONTROL WITH A VCR

Once you make certain the Remote Control has "identified" your remote controlled VCR, the Remote Control is ready to operate your unit. The various VCR function buttons on the Remote Control will not operate your VCR if those features are not already found on your unit.

OPERATION OF REMOTE CONTROL

- All VCR buttons will operate whether the Remote Control is in TV or CATV modes.
- For detailed information on the use of the VCR, refer to the operation manual of the VCR.

[click here for image](#)

VCR POWER

PLAY

REWING

PAUSE II

STOP

REMOTE KEYPAD

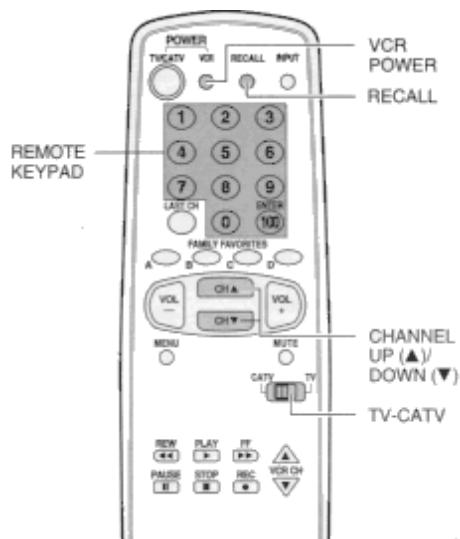
ENTER

FF ►►

VCR CHANNEL

UP (▲) / DOWN (▼)

RECORD ●



HOW TO IDENTIFY A VCR

The remote control may already be set to operate your VCR. Try this initial check to see if going on to the following "identify" section is necessary.

- (1) Point remote towards VCR and press **VCR POWER**.
- (2) Does the remote turn the VCR ON and OFF?
 - If yes, the remote is ready to operate the VCR and no further steps are needed.
 - If no, continue to the "identify" section.

TO IDENTIFY YOUR VCR - DIRECT ENTRY METHOD

Use the following steps and list to quickly find the remote control code for your accessory VCR.

- First look up your VCR's remote control code number (page 35) before going through the direct code entry steps control.
- If this procedure does not identify your accessory VCR, use the Search method of identification (described in the next section).

- (1) Slide **TV-CATV** switch to **TV**.
- (2) Press and hold down **RECALL** and **CH DOWN (▼)** on your remote control.

OPERATION OF REMOTE CONTROL

Then release both buttons.

(3) Within ten seconds after releasing *RECALL* and *CH DOWN* (▼), enter your VCR's two-digit remote control code number using *REMOTE KEYPAD* (refer to list).

• The remote control is now ready to send commands to your VCR.

Some brands have more than one remote code listed due to changes in the remote codes from early to later model years, or due to format differences (VHS/BETA). In such cases, you may have to try more than one code to find the code your VCR accepts.

NOTE:

Depending on the model, year produced, brand, and type of VCR, some models may not be compatible with the remote control.

TO IDENTIFY YOUR VCR - SEARCH METHOD.

(1) Slide *TV-CATV* switch on the remote to *TV*.

(2) Press *POWER* on the VCR to *On*.

(3) Stand at least six feet away from the front of the VCR.

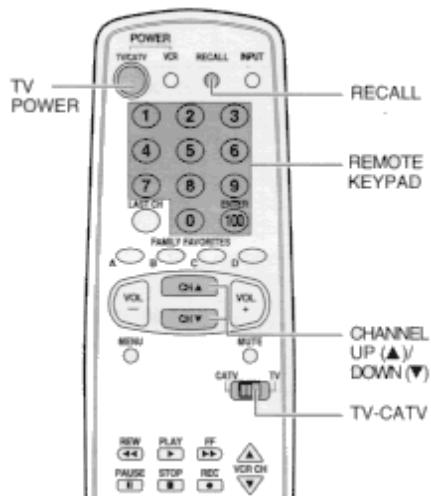
Point the remote towards the VCR.

Hold down *RECALL* and *CH UP* (▲) at the same time. **KEEP HOLDING THE BUTTONS DOWN.**

(4) Watch the Channel Number indicator on the VCR, Channel numbers will scan up when the VCR has been identified.

Release *RECALL* and *CH* (▲) as soon as the channel numbers start to scan up.

The VCR's remote control code number has been identified, and the remote is ready to operate the VCR.



TIPS ON IDENTIFYING YOUR VCR:

If your VCR model does not have the CHANNEL UP function on its remote control, it cannot be identified using the SEARCH method of identifying. For such models, please try the DIRECT ENTRY method of identifying.

Be Patient: a minute or two can seem a lot longer when you're waiting for something to happen, but the code should be identified within two minutes. Remember, it is only a one-time set-up.

Be careful not to let the VCR scan more than five channels when the indicator starts to move up. If you continue holding down the *RECALL* and *CH UP* (▲) after five channel scans, the proper remote code can be passed up, and the two minute identify cycle will have to be repeated.

If a channel change does not occur on the VCR within two minutes, read the identifying instructions again and repeat the steps. Should a channel change still not occur the remote will not operate with the desired VCR..

HOW TO IDENTIFY A CABLE CONVERTER

■ TO IDENTIFY YOUR CABLE CONVERTER - DIRECT ENTRY METHOD.

OPERATION OF REMOTE CONTROL

Use the following steps and list to quickly find the remote control code for your accessory VCR.

- First look up your converter's remote control code number (page 36) before going through the direct code entry steps below.
- If this procedure does not identify your converter, use the Search method of identification (described in the next section).

VCR BRAND

REMOTE CONTROL CODE

VCR BRAND	REMOTE CONTROL CODE	VCR BRAND	REMOTE CONTROL CODE
AKAI	25,26,37	AUDIO DYNAMICS	15,22,30
BROOKSONIC	32	CANON	04
CAPEHEART	34	CRAIG	10,31
CURTIS MATHIS	04	DAEWOO	34
DBX	15,22,30	DYNATECH	29
EMERSON	21,32,35	FISHER	09,10,11
FUNAI	28,29	GE	04
GOLDSTAR	24	HITACHI	01
INSTANT REPLAY	04	JCPENNEY	04,10,24,30
JVC	15,41,42	KENWOOD	14,15
LLOYD'S	29	MAGNAVOX	04,05,08
MAGNIN	31	MARANTZ	30
MEMOREX	04,10,24,29	MINOLTA	01
MITSUBISHI	17,18,39,40	MONTGOMERY WARD	02,43
MULTITECH	29	NEC	15,22,30

OPERATION OF REMOTE CONTROL

PANASONIC	04,44	PENTAZX	01,05
PHILCO	04,05	PHILIPS	04,05,08
QUASAR	04	RCA	01, 07, 33
Realistic	02, 06, 10, 24	Samsung	23, 31
Sanyo	14, 10	Scott	20
Sears	01, 11, 24	Sharp	06, 02, 03
Shintom	36	Sony	12, 13, 38
Sound Design	29	Sylvania	04,05,08
Symphonic	29	Tatung	15
Teac	15, 29	Teknika	27, 29
Thomas	29	TMK	21
Toshiba	19, 20	Video Concepts	30
Yamaha	15, 29, 30	Zenith	16

(1) Slide **TV-CATV** switch to **TV**.

(2) Press and hold down **RECALL** and **CH DOWN (▼)** on your remote control. Then release both buttons.

(3) Within ten seconds after releasing **RECALL** and **CH DOWN (▼)**, enter your VCR's two-digit remote control code number using **REMOTE KEYPAD** (refer to list).

• The remote control is now ready to send commands to your converter.

Some brands have more than one remote code listed due to changes in the remote codes from early to later model years. In such cases, you may have to try more than one code to find the code your converter accepts.

NOTE:

Depending on the model, year produced, brand, and type of CATV converter, some models may not be compatible with the remote control.

TO IDENTIFY YOUR CABLE CONVERTER - SEARCH METHOD.

(1) Slide **TV-CATV** switch on the remote to **TV**.

(2) Press **POWER** on the cable converter to **On**.

(3) Stand at least six feet away from the converter.

Point the remote towards the converter.

Hold down **RECALL** and **CH UP (▲)** at the same time. **KEEP HOLDING THE BUTTONS DOWN**.

(4) Watch the Channel Number indicator on the converter. Channel numbers will scan up when the converter has been identified.

Release the **RECALL** and **CH (▲)** as soon as the channel numbers start to scan up.

The converter's remote control code number has been identified, and the remote is ready to operate the converter

TIPS ON IDENTIFYING YOUR CABLE CONVERTER:

Be Patient: a minute or two can seem a lot longer when you're waiting for something to happen, but the code should be identified within two minutes. Remember, it is only a one-time set-up.

Be careful not to let the CATV converter scan more than five channels when the indicator starts to move

BEFORE CALLING FOR SERVICE

up. If you continue holding down the *RECALL* and *CH UP* (▲) after five channel scans, the proper remote code can be passed up, and the two minute identify cycle will have to be repeated.

If a channel change does not occur on the cable converter within two minutes, read the identifying instructions again and repeat the steps. Should a channel change still not occur the remote will not operate with the desired converter.

CATV CONVERTER REMOTE CONTROL CODE NUMBER

NOTE:

Some satellite receivers can be operated by the REMOTE CONTROL. If you have a Satellite Receiver, you can use the above method to search for available channels.

CATV BRAND	CODE	CATV BRAND	CODE
ANVISION	07,08	CABLE STAR	07,08
EAGLE	08	EASTERN INTERNATIONAL	42
GENERAL INSTRUMENT	04,05,15,23,24,25,30,36	HAMLIN	12,13,14
JEROLD	04,05,15,23,24,25,30,36	MACOM	37
MAGNAVOX	07,08,19,25,28,29,32,33,40,41	NSC	09
CATV BRAND	CODE	CATV BRAND	CODE
OAK	22,16,38	OAK SIGMA	18
PANASONIC	27,39	PHILIPS	07,08,19,26,28,29,32,33,40,41
PIONEER	18,20	RANDTEK	07,08
RCA	27,43	REGAL	12,13
SCIENTIFIC ATLANTA	01,02,03,	SONY	44
SYLVANIA	11	TEKNIKA	06
TEXSCAN	11	TOCOM	17,21
UNIKA	31	VIEWSTAR	07,08,19,26,28,29,32,33,40,41

BEFORE CALLING FOR SERVICE

Check these items and see if you can correct trouble with a slight adjustment of the controls.

PROBLEM - click here for image of table

No Playback of VCR and Disk Player

No Picture or Sound from External Video/Audio Products

Remote Control Doesn't Work

CALLING FOR SERVICE.

Bars on Screen
Picture Distorted
Picture Rolls Vertically
No Color
Poor Reception on Some Channels
Weak Picture
Lines or Streaks in Picture
Ghosts in Picture
Picture Blurred
Sound OK, Picture Poor
Picture OK, Sound Poor
No Picture or Sound Dark and Blank Picture
External Electrical Noise Interfering with TV's Operation

NOTE:

- When viewing in TEXT mode, if no TEXT broadcast is being received, the screen may become dark and blank. Should this occur, set the Closed Caption mode to "OFF".



(Dark and Blank Picture)

CALLING FOR SERVICE.

For location of the nearest HITACHI Authorized Service Facilities, or to obtain product literature accessories, supplies, or customer assistance, please call 1-800-HITACHI.

HITACHI SERVICE HOTLINE

To locate an authorized HITACHI service facility in the continental U.S.A. and Canada,

DIAL TOLL FREE

7 days a week, 24 hours a day

800 HITACHI

(1-800-448-2244)

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Home Electronics Division**

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Should you have any questions regarding warranty, service, operation or technical assistance, please contact:

**Hitachi America LTD.
Home Electronics Division
1855 Dornoch Court
San Diego, CA 92154**

In Canada, please contact 1-800-HITACHI (1-800-448-2244)

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